

ABSTRACT OF THE DISCLOSURE

A differential group delay generator includes a polarization splitter which splits an input signal into two components having orthogonal states of polarization, and an adjustable delay system for receiving one component. For high accuracy and a fast response, the adjustable delay system includes an adjustable phase modulator for applying phase modulation to the carrier wave of the component to supply an intermediate signal carried by a modified center wavelength, and a delaying dispersive component receiving the intermediate signal and supplying a delayed signal. Applications include polarization dispersion compensation in long-haul optical transmission, especially via standard fibers.